

AMENDMENT AFTER FINAL  
U.S. Appln. No. 10/023,831

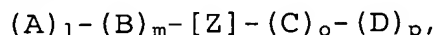
IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

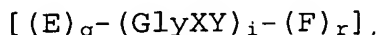
Claims 1-30. (Cancelled)

Claim 31. (Currently Amended) A synthetic recombinant hydroxylated triple helical protein comprising a polypeptide or peptide which is a synthetic polypeptide or peptide represented by the following formula:



wherein:

Z is a domain comprising two or more repeat units of the formula:



wherein;

E and F represent sequences of one or more amino acids, which sequences may vary from repeat unit to repeat unit, and for each repeat unit q and r are each independently selected from 0 and 1, and

i is  $\geq 1$  such that domain Z comprises 2 to 1500 GlyXY triplets,

Gly represents glycine, and

X and Y, which may be the same or different, represent an amino acid, and wherein the identity of each amino acid represented by X and Y may vary from GlyXY triplet to GlyXY triplet, but wherein at least one Y of the  $(GlyXY)_i$  sequence must be proline,

A and D, which may be the same or different, each represent a polypeptide or peptide domain which optionally comprises a triple helical forming repeating sequence  $(GlyXY)_n$ , wherein n

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is 2 to 1500 and l and p are each independently selected from 0 and 1,

B and C, which may be the same or different, each represent a polypeptide or peptide domain which is heterologous to collagen proteins and which does not comprise a triple helical forming repeating sequence  $(\text{GlyXY})_n$ , and m and o are each independently selected from 0 and 1, provided that at least one of m and o is 1.

Claim 32. (Currently Amended) The synthetic recombinant hydroxylated triple helical protein of claim 31, wherein domain Z comprises 10 to 300 GlyXY triplets.

Claim 33. (Currently Amended) The synthetic recombinant hydroxylated triple helical protein of claim 31, wherein in domain Z,  $(\text{GlyXY})_i$  has an amino acid length which is at least three times greater than the combined amino acid length of E and F.

Claim 34. (Currently Amended) A biomaterial or therapeutic product comprising said synthetic recombinant hydroxylated triple helical protein of claim 32, wherein the biomaterial or therapeutic product is formed from a member selected from the group consisting of collagens, natural and synthetic collagen fragments, and natural and synthetic collagen-like proteins.

Claim 35. (Currently Amended) A biomaterial or therapeutic product comprising said synthetic recombinant hydroxylated triple helical protein of claim 33, wherein the biomaterial or therapeutic product is formed from a member selected from the group consisting of collagens, natural and synthetic collagen fragments, and natural and synthetic collagen-like proteins.